



Alabama's Emerging Hepatitis C Epidemic and Vulnerability to an Outbreak of HIV Infection Among Persons Who Inject Drugs

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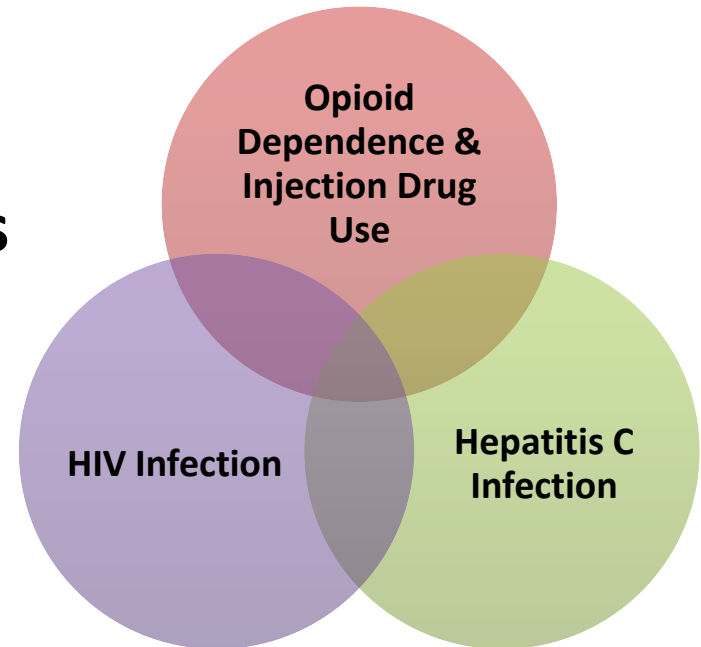
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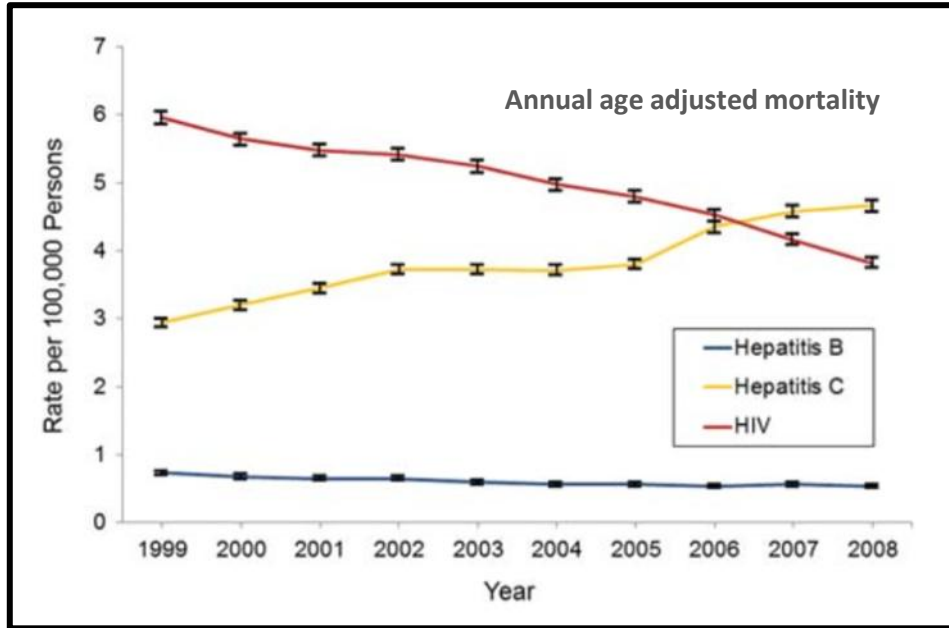
The Opioid & Blood Born Virus (BBV) Syndemic

Syndemic - A set of linked health problems involving two or more afflictions, interacting synergistically, and contributing to excess burden of disease in a population

**Needle scarcity & unsterile
needle re-use (sharing) increases
the risk for acquiring BBVs,
including HIV and HCV infection**



Hepatitis C Infection



Klevens RM, Hu DJ, Jiles RB, Holmberg SD. Evolving Epidemiology of Hepatitis C Virus in the United States. *Clin Infect Dis*. 2012;55(suppl 1):S3-S9. doi:10.1093/cid/cis393.

Blood-born virus

Highly prevalent

- >5 million in US estimated

High morbidity & mortality

- 60-70% will develop chronic liver disease
- 20% will develop liver cirrhosis
- Up to 5% will die of liver failure or liver cancer
- Leading cause of liver transplant

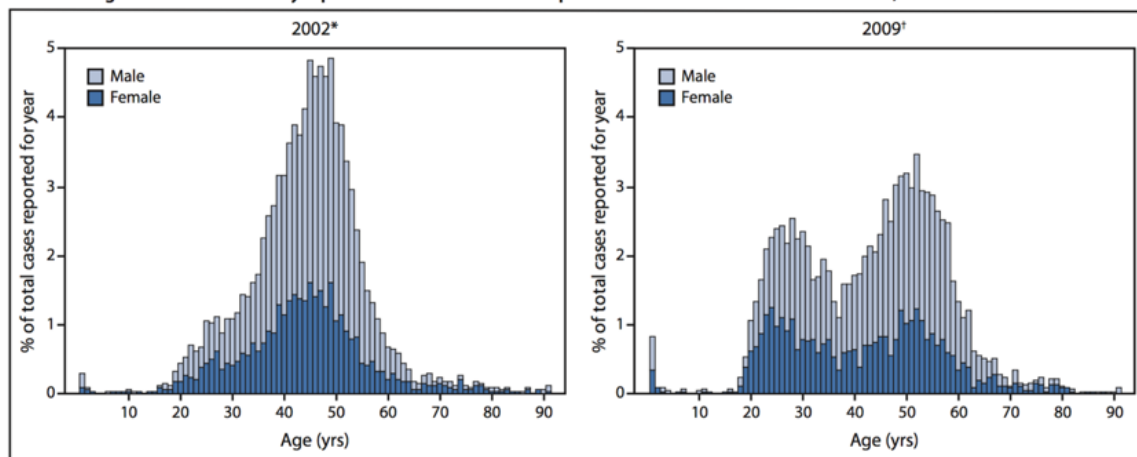
Curative

- 12 week course of all oral medications

Evolving Epidemiology of HCV Infection in the US

- Persons born between 1945-1965 account for 75% of infections
- Rising incidence among young (age <30) white IDUs

FIGURE 2. Age distribution of newly reported confirmed cases of hepatitis C virus infection — Massachusetts, 2002 and 2009



* N = 6,281; excludes 35 cases with missing age or sex information.

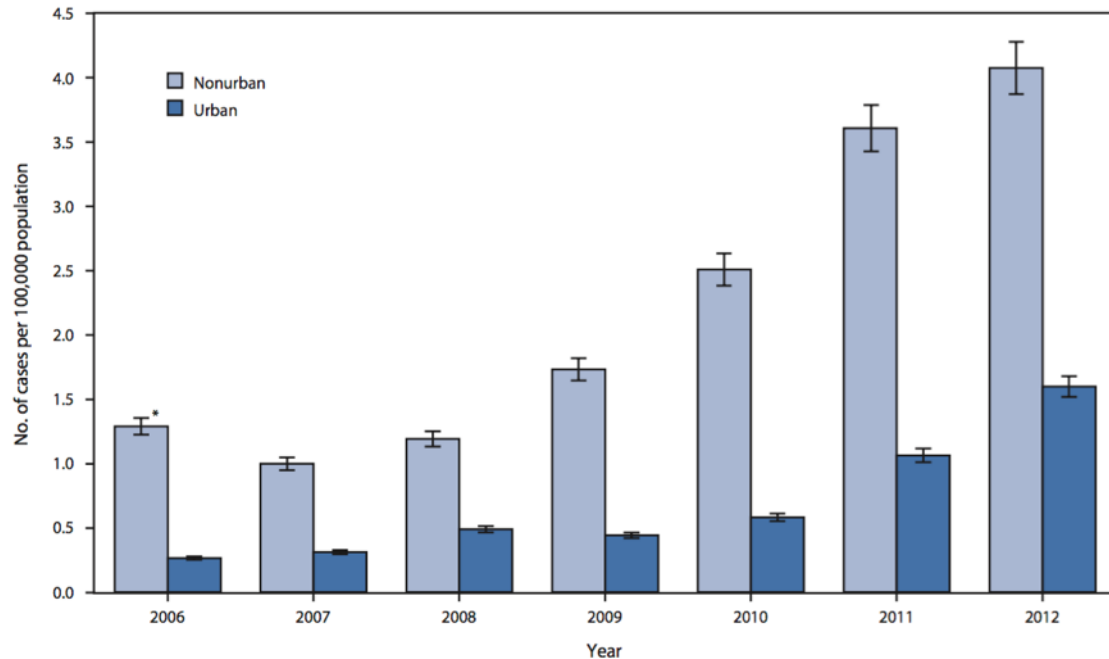
† N = 3,904; excludes 346 cases with missing age or sex information.

Centers for Disease Control and Prevention (CDC). Hepatitis C virus infection among adolescents and young adults: Massachusetts, 2002-2009. *MMWR Morbidity and mortality weekly report*. 2011;60(17):537-541.

Increases in Hepatitis C Virus Infection Related to Injection Drug Use Among Persons Aged ≤ 30 Years — Kentucky, Tennessee, Virginia, and West Virginia, 2006–2012.

MMWR Morbidity and mortality weekly report. 2015;64(17):454-458.

FIGURE 1. Incidence of acute hepatitis C among persons aged ≤ 30 years, by urbanicity and year — Kentucky, Tennessee, Virginia, and West Virginia, 2006–2012



* 95% confidence interval.

UAB Emergency Department Universal Hepatitis C Testing

October 15, 2015 to February 15, 2016 (*Unpublished data*)

Total tested: 5,972
HCV-Ab+: 458 (7.7%)

	No. Tested, n	HCV-Ab +, n (%)
Born 1945-1965		
Total	2,204	231 (10.5)
Sex		
Male	1,104	163 (14.8)
Female	1,100	68 (6.2)
Race		
White	1,058	100 (9.5)
Black	1,092	128 (11.8)
Other	39	3 (7.7)
Missing	15	0 (0.0)
Insurance Type		
Commercial	562	27 (4.8)
Medicare	844	80 (9.5)
Medicaid/Public	419	70 (16.9)
Uninsured	275	47 (17.1)
Other/Missing	104	7 (6.7)

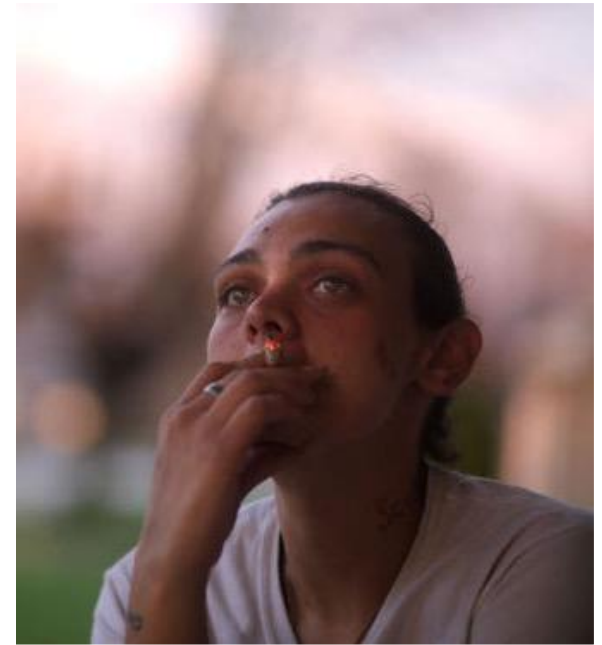
	No. Tested, n	HCV-Ab +, n (%)
Born After 1965		
Total	3,768	227 (6.0)
Sex		
Male	1,619	138 (8.5)
Female	2,149	89 (4.1)
Race		
White	1,554	181 (11.7)
Black	2,063	41 (2.0)
Other	96	1 (1.0)
Missing	55	4 (7.2)
Insurance Type		
Commercial	1,065	23 (2.2)
Medicare	359	23 (6.4)
Medicaid/Public	935	48 (5.1)
Uninsured	1,254	119 (9.5)
Other/Missing	155	14 (9.0)



URGENT

Largest HIV outbreak in Indiana history: A toxic mix of drug addiction, poverty, hopelessness

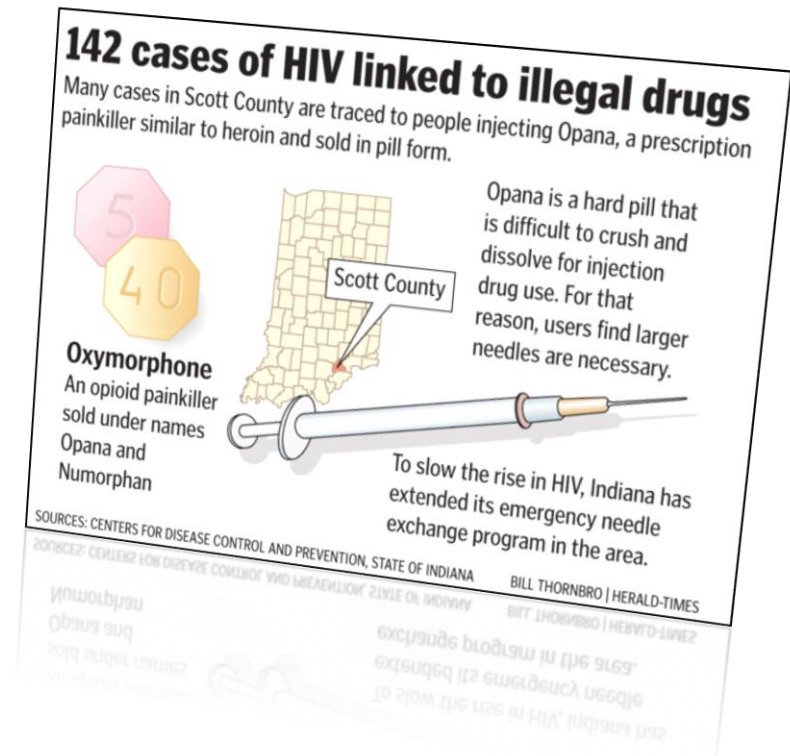
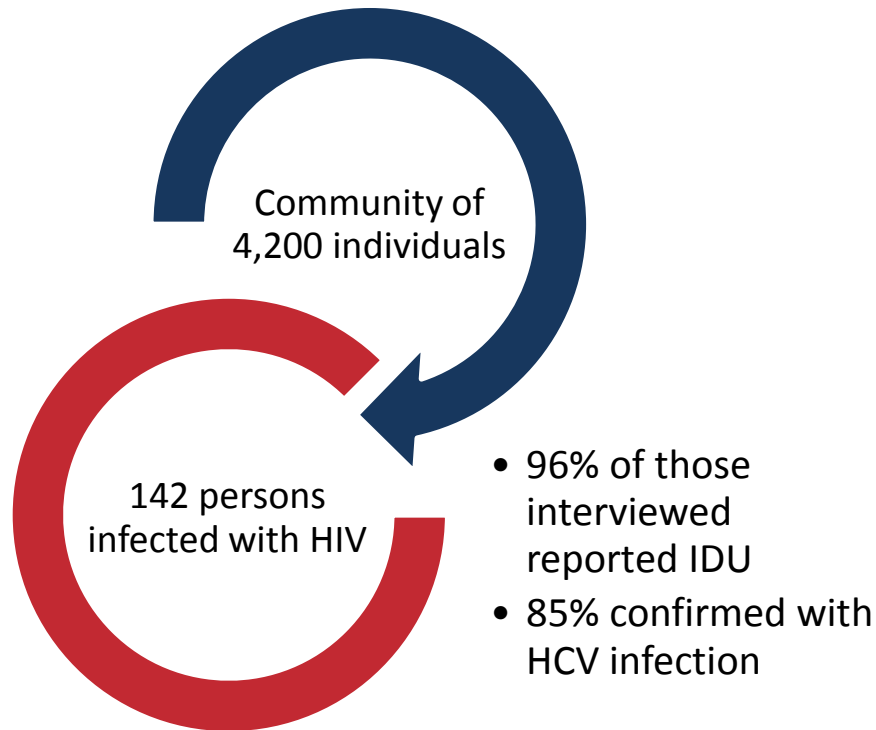
Giles Bruce giles.bruce@nwi.com, (219) 853-2584 Apr 18, 2015



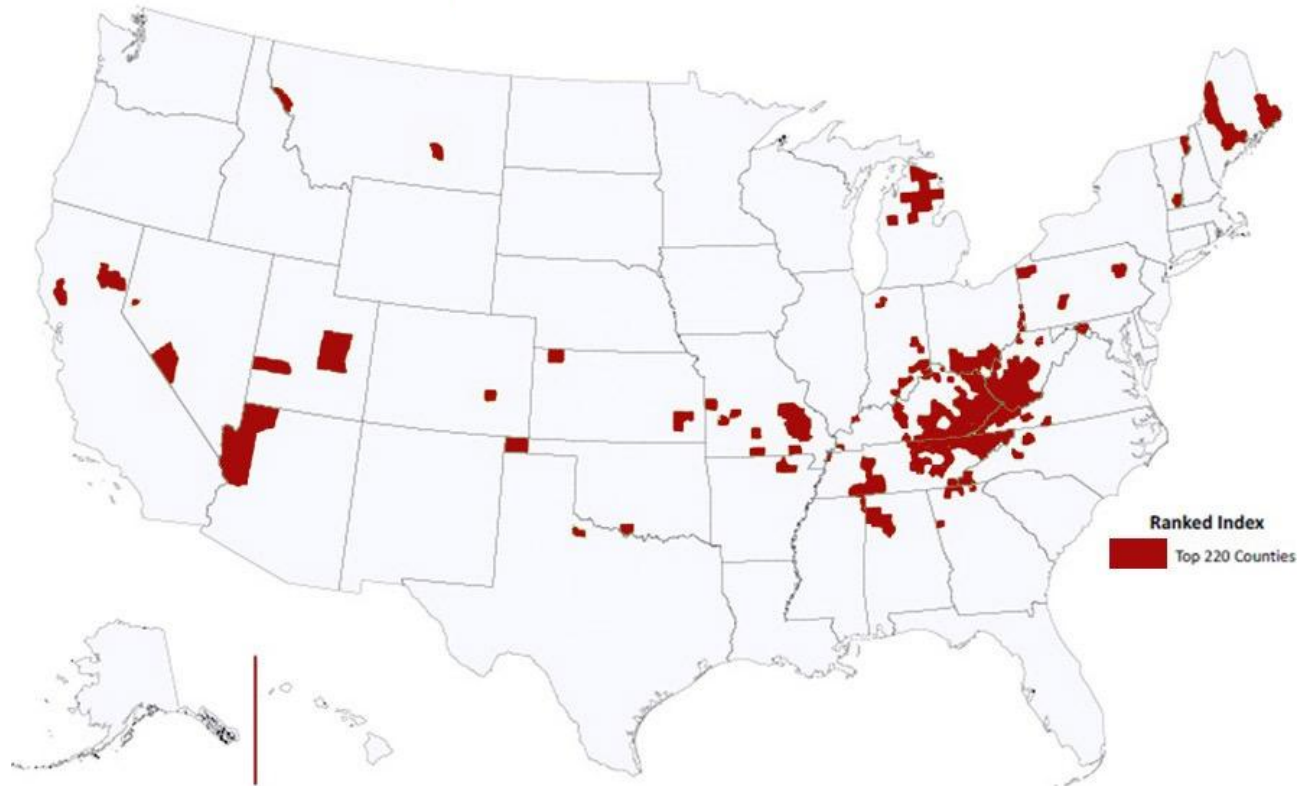
Community Outbreak of HIV Infection Linked to Injection Drug Use of Oxymorphone — Indiana, 2015

Caitlin Conrad¹, Heather M. Bradley², Dita Broz², Swamy Buddha¹, Erika L. Chapman¹, Romeo R. Galang^{2,3}, Daniel Hillman¹, John Hon¹, Karen W. Hoover², Monita R. Patel^{2,3}, Andrea Perez¹, Philip J. Peters², Pam Pontones¹, Jeremy C. Roseberry¹, Michelle Sandoval^{2,3}, Jessica Shields⁴, Jennifer Walthall¹, Dorothy Waterhouse⁴, Paul J. Weidle², Hsiu Wu^{2,3}, Joan M. Duwve^{1,5} (Author affiliations at end of text)

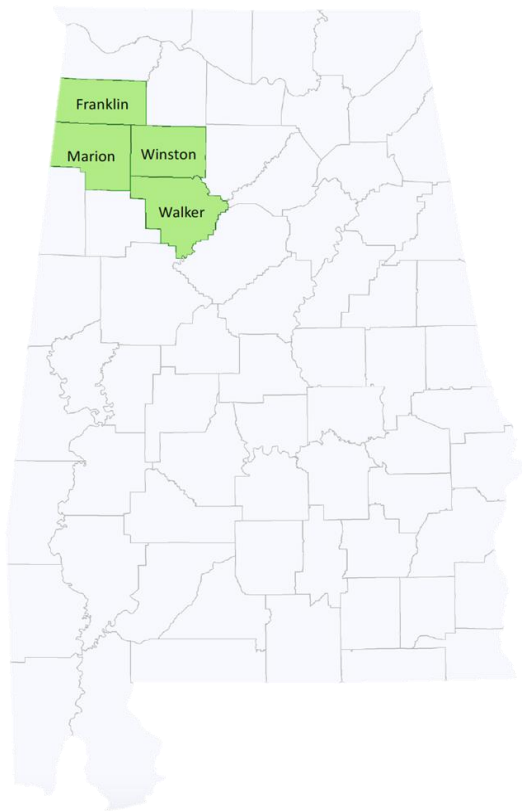
MMWR Morbidity and mortality weekly report. 2015;64(16):443-444.



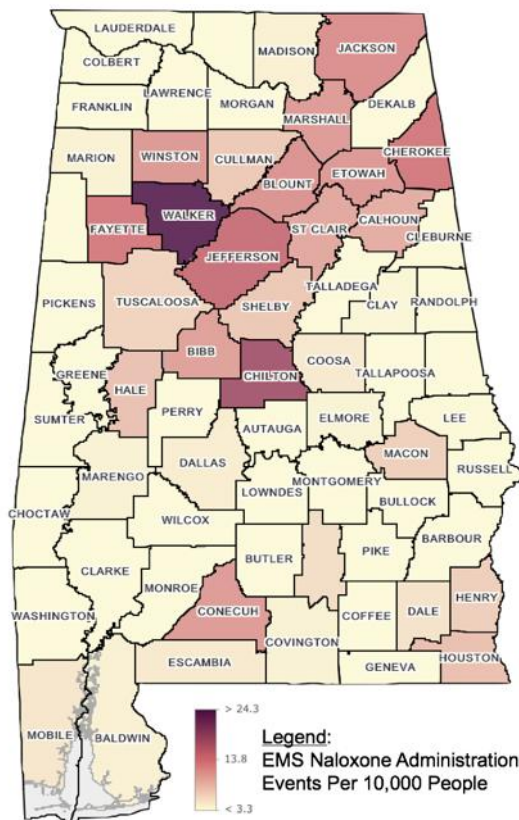
County-level Vulnerability to an Outbreak of HIV and HCV Infection among PWID (Top 5%)



Van Handel MM, Rose CE, Hallisey EJ, Kolling JL, Zibbell JE, Lewis B, Bohm MK, Jones CM, Flanagan BE, Siddiqi A-E-A, Iqbal K, Dent AL, Mermin JH, McCray E, Ward JW, Brooks JT: County-Level Vulnerability Assessment for Rapid Dissemination of HIV or HCV Infections Among Persons Who Inject Drugs, United States. *J Acquir Immune Defic Syndr* 2016;73(3):323–331.



*Vulnerable Alabama counties for an HIV and HCV outbreak among PWID**



EMS naloxone administration events per 10,000 county residents in 2014.

US County-level vulnerability ranking

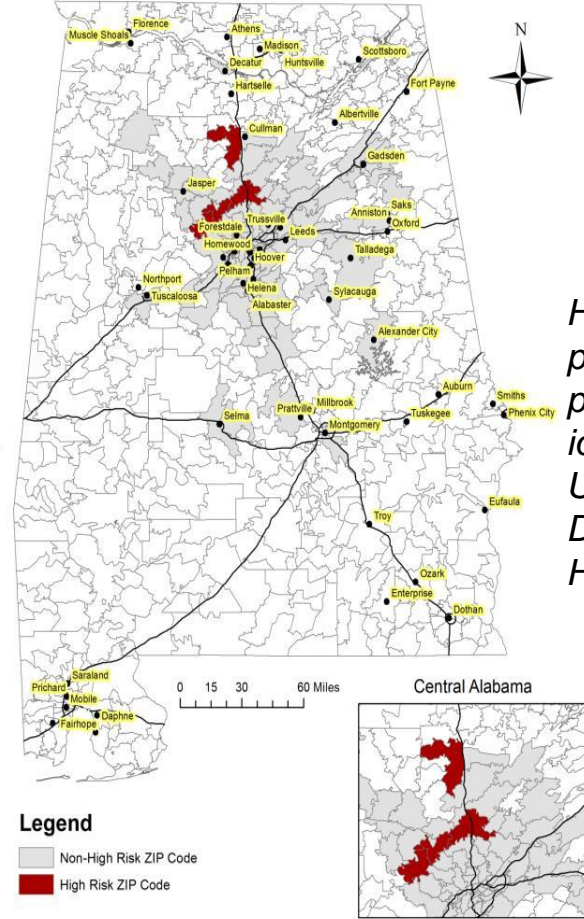
- Scott Co, IN 32nd
- Walker Co, AL 37th

Walker County

- highest mortality and annual mortality percent change in Alabama 2 times overall Alabama rates
- greatest number of EMS naloxone administration events per capita with 25.5 events per 10,000 residents compared to 6.8 events per 10,000 residents statewide.

*Van Handel MM, Rose CE, Hallisey EJ, Kolling JL, Zibbell JE, Lewis B, Bohm MK, Jones CM, Flanagan BE, Siddiqi A-E-A, Iqbal K, Dent AL, Mermin JH, McCray E, Ward JW, Brooks JT: County-Level Vulnerability Assessment for Rapid Dissemination of HIV or HCV Infections Among Persons Who Inject Drugs, United States. *J Acquir Immune Defic Syndr* 2016;73(3):323–331.

*Vulnerable Alabama counties for an HIV and HCV outbreak among PWID**



High-risk HCV prevalence zip codes for persons born after 1965 identified through the UAB Emergency Department universal HCV testing

*Van Handel MM, Rose CE, Hallisey EJ, Kolling JL, Zibbell JE, Lewis B, Bohm MK, Jones CM, Flanagan BE, Siddiqi A-E-A, Iqbal K, Dent AL, Mermin JH, McCray E, Ward JW, Brooks JT: County-Level Vulnerability Assessment for Rapid Dissemination of HIV or HCV Infections Among Persons Who Inject Drugs, United States. *J Acquir Immune Defic Syndr* 2016;73(3):323–331.



Immediate Goal (\$\$)

Long-Term Goal (\$\$\$\$)

Curbing the Opioid and BBV Syndemic

Audience Question

Some people feel that one way to engage persons who inject drugs and reduce the spread of communicable diseases is to offer needle exchange programs. Needle exchange programs involve agencies providing clean needles to drug users and others who inject themselves in exchange for used ones, in hopes of minimizing the spread of contagious diseases like HIV/AIDS and Hepatitis C.

In general, would you say you...

1 - disapprove strongly

2 - disapprove

3 - approve

4 - approve strongly

5 - or have no opinion at all about needle exchange programs

Harm Reduction – set of practical strategies and ideas aimed at reducing the negative consequences of drug use

Harm reduction interventions:

- Home naloxone distribution
- Opioid replacement therapy
- Syringe service programs
- Blood born virus testing



Immediate goals achievable through harm reduction:

- Reduction in overdose deaths
- Reduction in the spread of blood born virus infections through testing, referral, and vaccines
- Education of users on safer practices
- Reduction in illicit use through opioid replacement therapy

Syringe Services Programs: More than Just Needle Exchange

What is an SSP? A community-based program that ideally provides comprehensive services



Free sterile needles and syringes



Safe disposal of needles and syringes



Referral to mental health services



Referral to substance use disorder treatment, including medication-assisted treatment



HIV and hepatitis testing and linkage to treatment



Overdose treatment and education



Hepatitis A and B vaccination



Other tools to prevent HIV and hepatitis, including counseling, condoms, and PrEP (a medicine to prevent HIV)



SSPs DON'T increase illegal drug use or crime
but DO reduce HIV risk.

Syringe services programs: <http://bit.ly/2dhkAsq>

Find an SSP: <http://bit.ly/2dhktgB>

HIV diagnoses are down among PWID.
More access to SSPs could help reduce HIV further.

SOURCE: Vital Signs, December 2016 3



Improved Addiction Recovery Access (Long-Term Goal)

Inpatient / Residential / Outpatient
Addiction Recovery Care must be:

- **A**ffordable
- **A**ccessible (Local)
- **A**ccountable for outcomes



Improved Addiction Recovery Access (Long-Term Goal)

Criminal Justice Reform

- 50% of all prisoners meet criteria for drug abuse or dependence
- Alternatives to incarceration
 - treatment merged with judicial oversight in drug courts
 - prison- and jail-based treatments, including opioid replacement tx
 - reentry programs intended to help offenders transition from incarceration back into the community
- Improve medical outcomes & reduce recidivism = reduced costs

“Punishment alone is a futile and ineffective response to drug abuse, failing as a public safety intervention for offenders whose criminal behavior is directly related to drug use.”*

*Chandler RK, Fletcher BW, Volkow ND: Treating Drug Abuse and Addiction in the Criminal Justice System. JAMA 2009;301(2):183–16.

Current scope of the Alabama opioid epidemic has been measured in deaths and arrests

An iceberg floating in the ocean. The small tip of the iceberg is above the water surface, while the much larger, jagged mass of the iceberg is submerged underwater. This visual metaphor represents the hidden scale of the opioid epidemic compared to the visible statistics of deaths and arrests.

Important knowledge gap

- True size of the epidemic
- Locations affected
- Prevalence of HIV and HCV infection

This knowledge is essential to:

- Estimate the needs / costs and locations of any short or long-term intervention
- Serve as a baseline to measure the effectiveness of any intervention

Barriers to Alabama's Harm Reduction & Recovery Efforts

Financial

Who pays for this?

- Costs should be shared among all facets of the US healthcare system and criminal justice system because we all stand to gain from such an investment

Political

Can we align our laws with the evidence to reduce harm in Alabama?

- The evidence for harm reduction is not controversial, but societal beliefs and politics is controversial



Funding Source	Source Potential Benefits
Alabama General Fund	Vote winner
Public Health	Improved surveillance & addiction outcomes
Criminal justice system	Reductions in crime and costs related to crime
Health Systems	Reduction in healthcare costs
Insurance providers	Reduction in healthcare costs
Industry	Sales (HCV tx, opioid replacement, naloxone)
NIH / AHRQ / PCORI	Scientific advancement / knowledge

Funding Alabama's Harm Reduction & Recovery





Thatcher's Needle Exchange Was Revolutionary

homegrownoutlaw

2nd June 2016

2 Comments

In 1986, Margaret Thatcher initiated a program to prevent the spread of HIV to protect society. In its day, the Needle Exchange Programme was hailed as revolutionary and was seen to condone drug use.

Margaret Thatcher, loved or hated her, took charge and did what was right for the country. She took a brave step and stuck by her guns.

Regulation of drugs is the inevitable and logical conclusion to the "revolutionary" program.

We are now 24 years into the program and the UK has the lowest rate of HIV in the world. A modern day stance on health related issues is to regulate. The UK has been successful in doing so. We do not have such programs and refuse to do so, the US and Russia being the most notable. There is no one person that can argue the program has not worked. The UK has seen a 60% reduction in drug use down to a steady 1% compared to Russia who has no interest in anything but judicial stance, they have a 60% HIV rate.

Regulating and controlling drugs in the UK is not revolutionary, it is a continuation of the program in its essence. We look to Portugal, Holland, Italy, Czech Republic, these countries have decriminalised; drug use has lowered, crime has dropped significantly, HIV rates have plummeted, harms reduced considerably, and every area of society has benefited. Abuse of children has also seen a noticeable change for the better.

Continue Thatcher's legacy, her work is unfinished. Clean up society and take drugs away from cartels and gangs. Regulate, decriminalise, and control drugs. Drugs are not a crime, they are a health issue under prohibition.

Thatcher, for better or for worse, was a leader, not afraid of media bias. We need leading, we cry out for leadership:

More States and Cities Consider Needle-Exchange Programs to Reduce Spread of Infection

BY [JOIN TOGETHER STAFF](#)

PUBLIC HEALTH

Indiana's HIV Outbreak Leads To Reversal On Needle Exchanges

June 2, 2015 · 4:15 PM ET

STATE

JULY 16, 2016 7:56 PM

Needle exchanges spread in Kentucky as outbreak threat grows

Early results of W.Va. town's needle exchange program show progress



198

BY CHRISTINE VESTAL, STATELINE June 6, 2016 at 11:22 AM EDT



The Growing Necessity of Syringe Service Interventions in the US

Alabama Laws Regarding Syringes (AL Statute 13-A-12-260)

(a) Definition of "drug paraphernalia." As used in this section, the term "Drug paraphernalia" means all equipment, products, and materials of any kind which are used, intended for use, or designed for use, in planting, propagating, cultivating, growing, harvesting, manufacturing, compounding, converting, producing, processing, preparing, testing, analyzing, packaging, repackaging, storing, containing, concealing, injecting, ingesting, inhaling, or otherwise introducing into the human body a controlled substance in violation of the controlled substances laws of this state. It includes but is not limited to:

(11) Hypodermic syringes, needles and other objects used, intended for use, or designed for use in parenterally injecting controlled substances into the human body;

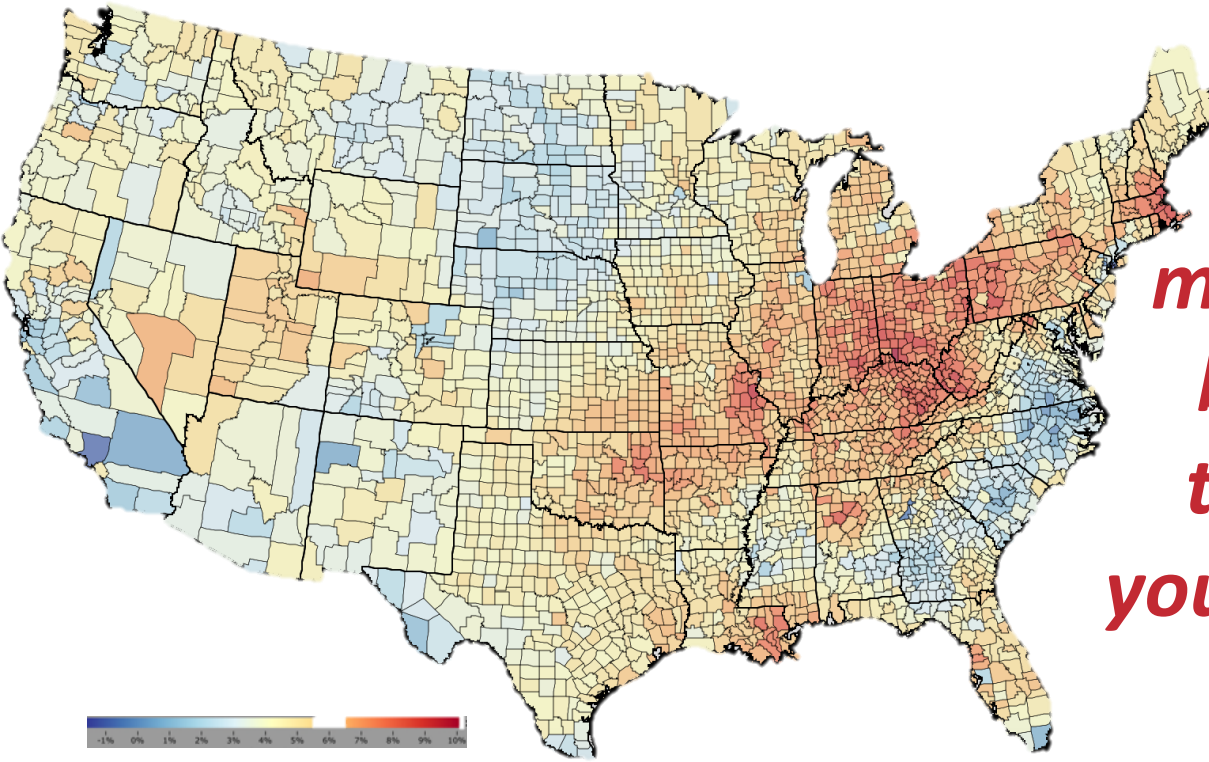
- No explicit authorization for syringe exchange by law
- No exceptions to the law that would allow for the distribution of syringes to prevent blood-borne diseases



***“Your longevity
and health are
more determined
by your zip code
than they are by
your genetic code”***

Tom Frieden, MD, MPH
CDC Director

**Annual Mortality Rate of Change for Mental Health & Substance
Use Disorders (2000-2014), Both Sexes, Age-Standardized**



The background of the slide features a close-up photograph of medical supplies on a light-colored wooden surface. In the foreground, there is a silver sharps container with a white cap, partially open, revealing a white sharps container inside. To the left of the sharps container is a red sharps container with white text that reads "BLOODBORNE HEP C, HEP B & CLEAN WORKS WORK BETTER". Several clear plastic syringes with orange and grey components are scattered in the background. The text "Alabama's Emerging Hepatitis C Epidemic and Vulnerability to an Outbreak of HIV Infection Among Persons Who Inject Drugs" is overlaid in large, bold, white letters with a slight shadow effect.

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